Northeast Region Forest Pest Update – 05/16/06

Topics covered this month:

Insects:
Bud gall mite
Eastern larch beetle
Eastern tent caterpillar
EAB detection tree update
EAB silvicultural guidelines
Gypsy moth
Larch casebearer
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Insects:

Bud gall mite – this cluster of buds on a bur oak branch (right) was caused by a Bud Gall Mite. These tiny critters feed within the buds which prompts the tree to create a gall rather than grow the bud into a shoot. Large numbers of mites can be found within a single gall. Control is difficult since the mites live within the gall. On small trees these galls can be pruned out and disposed of.

Eastern larch beetle – if you have tamarack and larch trees that didn't leaf out this year you should check them for small pin-head-sized holes along the main stem. These holes are an indication of infestation by Eastern Larch Beetle (adult, right). You might also notice that the bark has been removed during the winter by woodpeckers that were searching for insect snacks. Eastern Larch Beetle is a bark beetle that attacks tamarack and larch and is capable of killing the tree. Control of this insect is difficult due to the places that tamarack usually grows. If harvests are possible the infested trees (those that were killed within the last year) should be removed in the winter, thus removing the overwintering adults from the site. Harvests should be done with caution however since soil compaction, root damage, and damage to the residual trees may put them under stress which would make them more attractive to the beetles. Trap trees have been tried with limited success

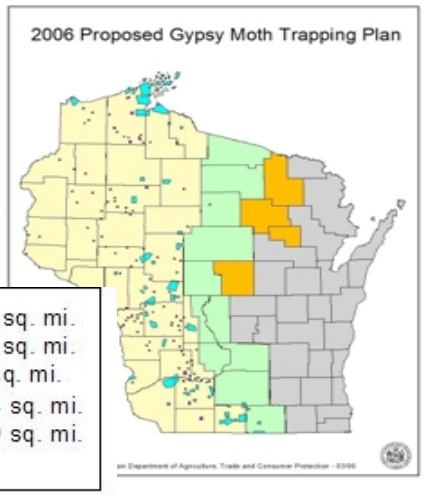
and chemical controls are difficult and impractical in a forest situation. For more information check out http://www.na.fs.fed.us/spfo/pubs/fidls/elb/elb.htm .

Eastern tent caterpillar – first instar caterpillars (just out of the egg) began emerging just days after I sent out my April pest update. Eastern tent caterpillar webs are often seen on young cherry trees. The identifying characteristic of eastern tent caterpillar (besides creating an actual web nest) is the white/cream stripe down the caterpillar's back, whereas forest tent caterpillar has keyhole shaped markings (or footprints) in their back, and gypsy moth have red and blue pairs of dots. Cherry trees that are severely defoliated by eastern tent caterpillar will send out a second set of leaves.

Emerald ash borer detection tree update – set-up of detection trees is complete. A detection tree is an ash that is girdled to cause it to release beetle-attracting chemicals, and it also has a sticky band wrapped around it to trap adult beetles. Currently we have not found EAB in Wisconsin. With the early warm weather this spring the folks in Michigan are predicting emergence of adult emerald ash borers to begin earlier than normal; normal adult emergence is the end of May. Starting in the next couple of weeks the sticky bands on the detection trees here in Wisconsin will be checked at least once a month and any suspect beetles will be collected and identified. Trees will be cut and peeled in the fall to look for EAB larvae beneath the bark. Six trees will be prepared at each property, and two will be cut and peeled each year. Questions about the project can be directed to Bill McNee at (920) 662-5430 or bill.mcnee@dnr.state.wi.us

Emerald ash borer silvicultural guidelines – are being developed. A draft of silvicultural guidelines will be discussed at the DNR's May, 2006 silvicultural team meeting. A draft will be shared and discussed at the June 7 & 8 Society of American Foresters' meeting in Wisconsin Rapids. This SAF meeting will provide many updates on a variety of EAB-related activities, including the state agency response plan. For more information on the SAF meeting, contact Steve Edge @ steve.edge@dnr.state.wi.us

Gypsy moth - from Bill McNee, NER gypsy moth suppression coordinator. Gypsy moth larvae in NER are ranging from second instars in the urban areas of southern NER to early first instars along the lakeshore and in the northern counties. To date, aerial spraying has been postponed several times due to unfavorable weather conditions. If the wet weather continues, we can expect heavy caterpillar mortality due to Entomophaga (a fungus), which would continue to keep gypsy moth populations in check statewide and limit westward spread this year.



This summer will be the first that none of the NER or SER counties are in the gypsy moth trapping grid, with the exception of Menominee County (map at right). In the northern region, Florence County has also been dropped but all other NOR counties remain in the grid. Trapping

resources have been shifted to western counties in order to get more valuable information for the money being spent.

Larch casebearer – defoliation is starting to show up already, it will appear as partially brown needles (right). Larch casebearer is a small caterpillar that mines out the interior of the needles, giving the tree a yellowish or tannish cast. This insect overwinters as a larvae and is able to start feeding early in the spring as soon as the weather warms up. They use a mined out needle as a protective house and appear as small tan pointy things on the needles of the tree. In cases of severe defoliation the tree will appear to have no green needles. Repeated defoliation can weaken the tree making it susceptible to attack by Eastern Larch Beetle.

Six-spotted green tiger beetle - many people mistake this beetle for Emerald Ash Borer because of its metallic green color. Last year was a great year for these beetles and I've been seeing large numbers of them this spring already. Six-spotted Green Tiger Beetles are usually found on the ground and will quickly run away or fly away if you attempt to capture them. If you are able to capture one you should be careful, they have powerful jaws that can inflict a pretty good pinch. The larvae are also predaceous and live in the ground with just their jaws sticking out of a small hole in the ground; when a small insects walks over them they clamp their jaws down, capturing the small insect.

True powderpost beetle – these small beetles (5cm long) are pests of unfinished wood products, including seasoned wood. They are a native species. Females lay many eggs and the larvae, a white grub, chew through the wood creating round tunnels that are packed with very fine powdery sawdust and frass (thus the name powderpost). True powderpost beetle adults lay eggs within the pores of unfinished wood products. They prefer wood with a moisture content of 15-17%, which can occur in your home. They can re-infest the same piece of wood repeatedly. Proper kiln drying eliminates infestations in raw hardwood material and the use of sealants or varnishes will prevent the adults beetles from laying eggs by sealing the pores in the wood surface. There are also some boron-based pesticides that can be used to treat unfinished wood to eliminate infestations.

Diseases:

Hickory mortality study – in my October 2005 pest update I covered a problem that we've begun to see causing decline and mortality in bitternut hickory. Symptoms include thinning crowns, branch mortality, and complete tree mortality; epicormic branches may sprout from the main stem only to wilt and die later. Insects and diseases associated with these symptoms

include 1) a flatheaded woodborer, 2) a bark beetle which attacks the tree and introduces 3) a canker fungus (*Ceratocystis smalleyii*), and finally 4) a fungal disease that causes wilt (*Ceratocystis caryae*). Apparently we are not alone in seeing this mortality of hickory, other states including Iowa, Missouri, and parts of Minnesota area seeing similar problems.

Dr. Jenny Juzwik of the North Central Research Station is going to do a study to gather more information on the fungal diseases affecting hickory, what role they might have in hickory decline in our region, and what role insect vectors might play in their transmission. She would like to collect some preliminary information this summer on hickory mortality in IA, WI, MO, and SE Minnesota where hickory mortality has recently been reported. This summer she would like to receive fresh wood samples from declining and recently dead hickories and brief information about the situation. She will culture the samples to determine whether either Ceratocystis may be involved.

If you have declining hickory in your area please consider being part of this study. I am aware of stands with hickory mortality in Calumet, Shawano, and Oconto Counties, if you have hickory mortality occurring and would like to be part of this study please contact me.

Oak wilt risk for wind damaged oaks - If you had oaks that were damaged by the winds on May 12 remember that this is the High Risk period for transmission of oak wilt (April 15 - July 1). If you will be out pruning oaks you should use wound paint on any wounds that you create, including fresh stumps. Fresh wounds that are left unpainted are attractive to the beetles for about 2 days. If you can't get out to clean up your wounded oaks immediately following a storm the wounds will no longer be attractive to the beetles after 2 days and you can wait to prune until later in the year when the risk of Oak Wilt tranmission is lower.

White pine blister rust – cankers are currently fruiting. This disease is specific to white pine trees but the disease cannot be transmitted directly from one tree to another. The spores that are produced on the tree will infect Ribes (gooseberry) plants which will produce spores later in the summer, those spores from the Ribes plants will then be able to infect a white pine tree. Blister rust causes a canker on white pine which can girdle the branches and the main stem, and can kill the tree. The fruiting bodies burst through the bark at the edges of the canker and appear as orange blisters on the branch or trunk (right).

Other:

Forestry helper – this enterprising pup was all too happy to help me during one of my site visits. He tried to take nearly every branch sample that I clipped, but eventually he settled for carrying my pruners for me (photo). Very helpful!

Need another way to describe "fader" trees? – have you ever tried to describe a fader tree to a landowner? For example,

you're trying to describe the trees on the edge of a red pine pocket that aren't dead yet but they're declining or fading with thinning crowns and tufted foliage. You know what you mean by "thinning crown, tufted foliage, and off-color" but sometimes the landowner just can't picture it. On a recent site visit I heard a consulting forester refer to some of these red pines with tufted foliage as "poodle trees" which is a novel way to describe this look (photos show tufted foliage, thinning crowns, poodle for comparison).

Watch for oak tatters – although it's not known exactly what causes oak tatters to occur (cold temps, wind, or herbicides) the symptoms look like severe defoliation from insects. Due to the strong winds on May 12 you may see oak tatters occurring more commonly this year. To identify oak tatters look closely at the leaves; you'll notice that the leaf edges aren't actually chewed by insects, rather the leaves just didn't form all the tissue that they should have (photo left), giving them a lacey appearance. Oak tatters is found primarily on white oak but sometimes red oaks can be affected as well. If you see oak tatters occurring please let me know. There is no cure or treatment for oak tatters and most trees send out a second set of leaves.

Northeast Region Pest Update produced by:

Linda Williams
Forest Health Specialist
Wisconsin Department of Natural Resources - Northeast Region
Linda.Williams@dnr.state.wi.us
http://dnr.wi.gov/org/land/forestry/Fh/index.htm